

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A financial instrument comprising a futures contract that enables cash settlement while simultaneously preserving the price dynamics of a physical-delivery futures contract.
2. (Original) A financial instrument comprising a futures contract that provides the convenience of cash settlement and the clarity of cash-futures spreading relationships.
3. (Currently Amended) A financial instrument comprising a futures contract ~~contracts~~ having tick sizes that differ from a corresponding physical-delivery futures contract ~~foreign government debt instrument~~.
4. (Currently Amended) A financial instrument comprising a futures contract that references a basket of securities corresponding to a deliverable basket for a corresponding physical-delivery futures contract ~~foreign government debt instrument~~.
5. (Currently Amended) The financial instrument of claim 4 further wherein the basket of securities is identical to the deliverable basket for a corresponding physical-delivery futures contract ~~foreign government debt instrument~~.
6. (Currently Amended) A financial instrument comprising a futures contract that is cash settled and obeys the same schedule for last trading day and expiration as a corresponding physical-delivery futures contract ~~foreign government debt instrument~~.
7. (Currently Amended) A financial instrument comprising a futures contract that converges to a final settlement value equal to a conversion-factor-weighted price of whichever cash issue is cheapest to deliver into a corresponding physical-delivery futures contract ~~foreign government debt instrument~~.

8. (Currently Amended) The financial instrument of claim 7 further wherein, in highly extreme market conditions, prices of the futures contract and the corresponding physical-delivery futures contract ~~foreign government debt instrument prices may~~ diverge.

9. (Original) The financial instrument of claim 7 further wherein, in highly extreme market conditions, the futures contract of the present invention expires at a price level that minimizes unresolved cash-futures arbitrage opportunities.

10. (Currently Amended) A financial instrument comprising a futures contract that is cash-settled and mirrors a physical delivery mechanism utilized to settle a corresponding physical-delivery futures contract ~~foreign government debt instrument~~.

11. (Original) The financial instrument of claim 10 further wherein Exchange Futures for Physical (EFP) transactions are permitted.

12. (Currently Amended) The financial instrument of claim 10 further wherein the futures contract utilizes a tick size different from the tick size of the corresponding physical-delivery futures contract ~~foreign government debt instrument~~.

13. (Currently Amended) The financial instrument of claim 10 further wherein settlement price determination assures that the futures contract will expire at a conversion-factor-weighted price of whichever issue has the highest instantaneous implied repurchase agreement rate among issues in ~~the~~ a deliverable basket for a corresponding physical-delivery futures contract ~~foreign government debt instrument~~.

14. (Currently Amended) The financial instrument of claim 10 further wherein settlement price determination assures that the futures contract must expire at a price for which the minimum (notional) cash-futures basis is zero among issues in a deliverable basket for a ~~within the~~ corresponding physical-delivery futures contract ~~foreign government debt instrument~~.

15. (Currently Amended) The financial instrument of claim 14 further wherein settlement prices (S) are determined in accordance with:

$$S = Z \times (\text{minimum} \{ P_1/c_1 \dots P_N/c_N \}),$$

Where:

Z is a currency denomination price basis (in points);

N is a number of ~~government~~ securities issues in a contract reference basket;

P_i , $i = 1$ to N , are market prices of each security in the contract reference basket at the time contract expiration; and

c_i , $i = 1$ to N , are conversion factors, where each c_i is a price at which the corresponding government security yields a given percentage to maturity.

16. (Currently Amended) The financial instrument of claim 10 further wherein the futures contract utilizes as its corresponding physical-delivery futures contract ~~foreign government debt instrument~~ a bond futures contract based on a long-term debt instruments issued by the Federal Republic of Germany.

17. (Currently Amended) The financial instrument of claim 16 further wherein the futures contract utilizes as its corresponding physical-delivery futures contract ~~foreign government debt instrument~~ a bond futures contract based on [a] Bundesanleihen (Bunds) ~~notional long-term debt instrument~~ issued by the Federal Republic of Germany.

18. (Original) The financial instrument of claim 16 further wherein the futures contract utilizes a tick size of 0.2 (20 Euros).

19. (Currently Amended) The financial instrument of claim 16 further wherein final settlement value (S) of the futures contract is determined as:

$$S = Z \times (\text{minimum}\{P_1/c_1 \dots P_N/c_N\}),$$

Where:

Z is 1,000 Euros;

N is a number of Bund issues fulfilling a delivery standard;

P_i , $i = 1$ to N , are market prices of each Bund issue fulfilling the delivery standard, where all P_i are quoted in points and hundredths of one point, with par being on the basis of 100 points; and

c_i , $i = 1$ to N , are conversion factors, where each c_i is a price of the corresponding Bund issue, with a one Euro ~~U.S. dollar~~ par value yielding 6.00% to maturity.

20. (Currently Amended) The financial instrument of claim 10 further wherein the futures contract utilizes as its corresponding physical-delivery futures contract ~~foreign government debt instrument~~ a bond futures contract based on [a] medium-term debt instruments ~~instrument~~ issued by the Federal Republic of Germany.

21. (Currently Amended) The financial instrument of claim 20 further wherein the futures contract utilizes as its corresponding physical-delivery futures contract ~~foreign government debt instrument~~ a bond futures contract based on [a] Bundesobligationen (Bobl) ~~notional medium-term debt instrument~~ issued by the Federal Republic of Germany.

22. (Currently Amended) The financial instrument of claim 10 further wherein a basket of reference securities corresponding to the futures contract ~~utilizes as its corresponding physical-delivery foreign government debt instrument~~ comprises Bunds and Bobls ~~Bobl bond futures contracts~~.

23. (Original) The financial instrument for claim 22 further wherein the futures contract utilizes a tick size of 0.2 (20 Euros).

24. (Currently Amended) The financial instrument of claim 22 further wherein final settlement value (S) of the futures contract is determined as:

$$S = Z \times (\text{minimum}\{P_1/c_1 \dots P_N/c_N\}),$$

Where:

Z is 1,000 Euros;

N is a number of Bund and Bobl issues fulfilling a delivery standard;

P_i , $i = 1$ to N , are market prices of each Bund or Bobl issues fulfilling the delivery standard, where Bund and Bobl P_i are quoted in points and hundredths of one point, with par being on the basis of 100 points in all instances; and

c_i , $i = 1$ to N , are conversion factors, where each c_i is a price at which the corresponding Bund or Bobl issue, with a one Euro ~~U.S. dollar~~ par value yielding 6.00%.

25. (Currently Amended) The financial instrument of claim 10 further wherein the futures contract utilizes as its corresponding physical-delivery futures contract ~~foreign government debt instrument~~ a short-term federal debt instruments ~~instrument~~ issued by the Federal Republic of Germany.

26. (Currently Amended) The financial instrument of claim 25 further wherein the futures contract utilizes as its corresponding physical-delivery futures contract ~~foreign government debt instrument~~ a bond futures contract based on [a] Bundesschatzanweisungen (Schatz) ~~notional short term federal debt instrument~~ issued by the Federal Republic of Germany.

27. (Currently Amended) The financial instrument of claim 10 further wherein a basket of reference securities corresponding to the futures contract ~~utilizes as its corresponding physical-delivery foreign government debt instrument~~ comprises Bunds, Bobls, and Schatz ~~bond futures contracts~~.

28. (Original) The financial instrument of claim 27 further wherein the futures contract utilizes a tick size of 0.05 (5 Euros).

29. (Currently Amended) The financial instrument of claim 27 further wherein final settlement value (S) of the futures contract is determined as:

$$S = Z \times (\text{minimum} \{ P_1/c_1 \dots P_N/c_N \}),$$

Where:

Z is 1,000 Euros;

N is a number of Bund, Bobl, and Schatz issues fulfilling a delivery standard;

P_i , $i = 1$ to N , are market prices of each Bund or Bobl or Schatz issue fulfilling the delivery standard, where Bund and Bobl P_i are quoted in points and hundredths of one point and Schatz P_i are quoted in points and halves of one hundredth of one point, with par being on the basis of 100 points; and

c_i , $i = 1$ to N , are conversion factors, where each c_i is a price at which the corresponding Bund or Bobl or Schatz issue, with a one Euro U.S. dollar par value yielding 6.00%.

30. (Currently Amended) A financial instrument comprising a futures contract that is a cash settled correspondent to a physical delivery futures contract ~~foreign government debt instrument~~.

31. (Original) The financial instrument of claim 30 further wherein Exchange Futures for Physical (EFP) transactions are permitted.

32. (Currently Amended) The financial instrument of claim 30 further wherein the futures contract utilizes a tick size different from the tick size of the corresponding physical-delivery futures contract ~~foreign government debt instrument~~.

33. (Currently Amended) The financial instrument of claim 30 further wherein settlement price determination assures that the futures contract ~~will expires~~ at the conversion-factor-weighted price of whichever issue has the highest instantaneous implied repurchase agreement rate among issues in a deliverable basket for a ~~the~~ corresponding physical-delivery futures contract ~~foreign government debt instrument~~.

34. (Currently Amended) The financial instrument of claim 30 further wherein settlement price determination assures that the futures contract must expire at a price for which the minimum (notional) cash-futures basis is zero among issues in a deliverable basket for a ~~within the~~ corresponding physical-delivery futures contract ~~foreign government debt instrument~~.

35. (Currently Amended) The financial instrument of claim 34 further wherein the settlement prices (S) are determined in accordance with:

$$S = Z \times (\text{minimum} \{ P_1/c_1 \dots P_N/c_N \}),$$

Where:

Z is a currency denomination prices basis (in points);

N is a number of ~~government~~ securities issues in a contract reference basket;

P_i , $i = 1$ to N , are market prices of each security in the contract reference basket at the time contract expiration; and

c_i , $i = 1$ to N , are conversion factors, where each c_i is a price at which the corresponding government security yields a given percentage to maturity.

36. (Currently Amended) The financial instrument of claim 30 further wherein the futures contract utilizes as its corresponding physical-delivery futures contract ~~foreign government debt instrument~~ a bond futures contract based on a long-term debt instruments ~~instrument~~ issued by the Federal Republic of Germany.

37. (Currently Amended) The financial instrument of claim 36 further wherein the futures contract utilizes as its corresponding physical-delivery futures contract ~~foreign government debt instrument~~ a bond futures contract based on [a] Bundesanleihen (Bunds) ~~notional long-term debt instrument~~ issued by the Federal Republic of Germany.

38. (Original) The financial instrument of claim 36 further wherein the futures contract utilizes a tick size of 0.2 (20 Euros).

39. (Currently Amended) The financial instrument of claim 37 further wherein final settlement value (S) of the futures contract is determined as:

$$S = Z \times (\text{minimum} \{ P_1/c_1 \dots P_N/c_N \}),$$

Where:

Z is 1,000 Euros;

N is a number of Bund issues fulfilling a delivery standard;

P_i , $i = 1$ to N , are market prices of each Bund issue fulfilling the delivery standard, where all P_i are quoted in points and hundredths of one point, with par being on the basis of 100 points; and

c_i , $i = 1$ to N , are conversion factors, where each c_i is a price at which the corresponding Bund issue, with a one Euro ~~U.S. dollar~~ par value yielding 6.00% to maturity.

40. (Currently Amended) The financial instrument of claim 30 further wherein the futures contract utilizes as its corresponding physical-delivery futures contract ~~foreign government debt instrument~~ a bond futures contract based on [a] medium-term debt instruments issued by the Federal Republic of Germany.

41. (Currently Amended) The financial instrument of claim 40 further wherein the futures contract utilizes as its corresponding physical-delivery futures contract ~~foreign government debt instrument~~ a bond futures contract based on [a] Bundesobligationen (Bobls) ~~notional medium-term debt instrument~~ issued by the Federal Republic of Germany.

42. (Currently Amended) The financial instrument of claim 40 further wherein a basket of reference securities corresponding to the futures contract ~~utilizes as its corresponding physical-delivery foreign government debt instrument~~ comprises Bunds and Bobls ~~bond futures contracts~~.

43. (Original) The financial instrument of claim 40 further wherein the futures contract utilizes a tick size of 0.2 (20 Euros).

44. (Currently Amended) The financial instrument of claim 42 further wherein final settlement value (S) of the futures contract is determined as:

$$S = Z \times (\text{minimum} \{ P_1/c_1 \dots P_N/c_N \}),$$

Where:

Z is 1,000 Euros;

N is a number of Bund and Bobl issues fulfilling a delivery standard;

P_i , $i = 1$ to N , are market prices of each Bund or Bobl issues fulfilling the delivery standard, where Bund and Bobl P_i are quoted in points and hundredths of one point, with par being on the basis of 100 points; and

c_i , $i = 1$ to N , are conversion factors, where each c_i is a price of corresponding Bund and Bobl issue, with a one Euro ~~U.S. dollar~~ par value yielding 6.00%.

45. (Currently Amended) The financial instrument of claim 30 further wherein the futures contract utilizes as its corresponding physical-delivery futures contract ~~foreign government debt instrument~~ a bond futures contract based on short-term federal debt instrument issued by the Federal Republic of Germany.

46. (Currently Amended) The financial instrument of claim 45 further wherein the futures contract utilizes as its corresponding physical-delivery futures contract ~~foreign government debt instrument~~ a bond futures contracted based on a Bundesschatzanweisungen (Schatz) ~~notional short term federal debt instrument~~ issued by the Federal Republic of Germany.

47. (Currently Amended) The financial instrument of claim 30 further wherein a basket of reference securities corresponding to the futures contract ~~utilizes as its corresponding physical-delivery foreign government debt instrument~~ comprises Bunds, Bobls, and Schatz ~~bond futures contracts~~.

48. (Original) The financial instrument of claim 47 further wherein the futures contract utilizes a tick size of 0.05 (5 Euros).

49. (Currently Amended) The financial instrument of claim 47 further wherein final settlement value (S) of the futures contract is determined as:

$$S = Z \times (\text{minimum} \{ P_1/c_1 \dots P_N/c_N \}),$$

Where:

Z is 1,000 Euros;

N is a number of Bund, Bobl, and Schatz issues fulfilling a delivery standard;

P_i , $i = 1$ to N , are market prices of each Bund or Bobl or Schatz issues fulfilling the delivery standard, where all Bund and Bobl P_i are quoted in points and hundredths of one point, and Schatz P_i are quoted in points and halves of one hundredths of one point, with par being on the basis of 100 points; and

c_i , $i = 1$ to N , are conversion factors, where each c_i is a price at which the corresponding Bund or Bobl or Schatz issue, with a one Euro ~~U.S. dollar~~ par value yielding 6.00%.

50. (Currently Amended) The financial instrument of claim 10 further wherein settlement price of the futures contract is a non-minimum price of conversion-factor-weighted prices for members of the deliverable basket.

51. (Cancelled)

52. (Currently Amended) The financial instrument of claim 10 wherein the non-minimum price is a mean ~~price~~ of conversion-factor-weighted prices for members of a deliverable basket ~~the issue with the highest instantaneous repurchase agreement rate.~~

53. (Currently Amended) The financial instrument of claim 30 further wherein settlement price of the futures contract is a non-minimum price of conversion-factor-weighted prices for members of the deliverable basket.

54. (Cancelled)

55. (Currently Amended) The financial instrument of claim 30 wherein the non-minimum price is a mean ~~price~~ of conversion-factor-weighted prices for members of a deliverable basket ~~the issue with the highest instantaneous repurchase agreement rate.~~

56. (Currently Amended) The financial instrument of claim 10 wherein settlement prices (S) are determined in accordance with:

$$S = Z \times \text{percentile} \{ p: (P_1/c_1, P_2/c_2 \dots P_N/c_N) \}$$

where:

Z is a currency denomination per price point;

N is a number of ~~government~~ securities issues in a contract reference basket;

P_i , $i = 1$ to N , are market prices of each security in the contract reference basket at the time of contract expiration;

c_i , $i = 1$ to N , are conversion factors, such that each c_i is a price at which the corresponding ~~government~~ security yields a given percentage to maturity; and

percentile{ $p:V$ }, $0 \leq p \leq 1$, and $V = (P_1/c_1, P_2/c_2 \dots P_N/c_N)$, denotes a percentile of members of a vector V .

57. (Currently Amended) The financial instrument of claim 10 wherein settlement prices (S) are determined in accordance with:

$$S = Z \times \text{mean}(P_1/c_1, P_2/c_2 \dots P_N/c_N)$$

where:

Z is a currency denomination per price point;

N is a number of ~~government~~ securities issues in a contract reference basket;

P_i , $i = 1$ to N , are market prices of each security in the contract reference basket at the time of contract expiration;

c_i , $i = 1$ to N , are conversion factors, such that each c_i is a price at which the corresponding ~~government~~ security yields a given percentage to maturity; and

$\text{mean}(V)$, $V = (P_1/c_1, P_2/c_2 \dots P_N/c_N)$, denotes an arithmetic average of members of a vector V .

58. (Currently Amended) The financial instrument of claim 10 wherein settlement prices (S) are determined in accordance with:

$$S = Z \times t\text{mean}\{ p:(P_1/c_1, P_2/c_2 \dots P_N/c_N) \}$$

where:

Z is a currency denomination per price point;

N is a number of ~~government~~ securities issues in a contract reference basket;

P_i , $i = 1$ to N , are market prices of each security in a contract reference basket at the time of contract expiration;

c_i , $i = 1$ to N , are conversion factors, such that each c_i is a price at which the corresponding ~~government~~ security yields a given percentage to maturity; and

$tmean(p:V)$, $0 \leq p \leq 1$, and $V = (P_1/c_1, P_2/c_2 \dots P_N/c_N)$, denotes a trimmed arithmetic average of the members of a vector V , computed as an arithmetic average of members of V , excluding those members that are either less than a p^{th} percentile of V or greater than a $(1-p)^{th}$ percentile of V .

59. (Currently Amended) The financial instrument of claim 10 wherein settlement prices (S) are determined in accordance with:

$$S = Z \times gmean(P_1/c_1, P_2/c_2 \dots P_N/c_N)$$

where:

Z is a currency denomination per price point;

N is a number of ~~government~~ securities issues in a contract reference basket;

P_i , $i = 1$ to N , are market prices of each security in a contract reference basket at the time of contract expiration;

c_i , $i = 1$ to N , are conversion factors, such that each c_i is a price at which the corresponding ~~government~~ security yields a given percentage to maturity; and

$gmean(V)$, $V = (P_1/c_1, P_2/c_2 \dots P_N/c_N)$, denotes a geometric mean of the members of a vector V .

60. (Currently Amended) The financial instrument of claim 10 wherein settlement prices are determined in accordance with:

$$S = Z \times tgmean\{ p:(P_1/c_1, P_2/c_2 \dots P_N/c_N) \}$$

where:

Z is a currency denomination per price point;

N is a number of ~~government~~ securities issues in a contract reference basket;

P_i , $i = 1$ to N , are market prices of each security in a contract reference basket at the time of contract expiration;

c_i , $i = 1$ to N , are conversion factors, such that each c_i is a price at which the corresponding ~~government~~ security yields a given percentage to maturity; and

$tgmean(p;V)$, $0 \leq p \leq 1$, and $V = (P_1/c_1, P_2/c_2 \dots P_N/c_N)$, denotes a trimmed geometric mean of the members of a vector V , computed as a geometric mean of members of V , excluding those members that are either less than a p^{th} percentile of V or greater than a $(1-p)^{th}$ percentile of V .

61. (Currently Amended) The financial instrument of claim 10 wherein settlement prices (S) are determined in accordance with:

$$S = Z \times hmean(P_1/c_1, P_2/c_2 \dots P_N/c_N)$$

where:

Z is a currency denomination per price point;

N is a number of ~~government~~ securities issues in a contract reference basket;

P_i , $i = 1$ to N , are market prices of each security in a contract reference basket at the time of contract expiration;

c_i , $i = 1$ to N , are conversion factors, such that each c_i is a price at which the corresponding ~~government~~ security yields a given percentage to maturity; and

$hmean(V)$, $V = (P_1/c_1, P_2/c_2 \dots P_N/c_N)$, denotes a harmonic mean of members of a vector V .

62. (Currently Amended) The financial instrument of claim 10 wherein settlement prices (S) are determined in accordance with:

$$S = Z \times \text{thmean}\{ p:(P_1/c_1, P_2/c_2 \dots P_N/c_N) \}$$

where:

Z is a currency denomination per price point;

N is a number of ~~government~~ securities issues in a contract reference basket;

P_i , $i = 1$ to N , are market prices of each security in the contract reference basket at the time of contract expiration;

c_i , $i = 1$ to N , are conversion factors, such that each c_i is a price at which the corresponding ~~government~~ security yields a given percentage to maturity; and

$\text{thmean}(p;V)$, $0 \leq p \leq 1$, and $V = (P_1/c_1, P_2/c_2 \dots P_N/c_N)$, denotes a trimmed harmonic mean of the members of the vector V , computed as a harmonic mean of members of V , excluding those members that are either less than a p^{th} percentile of V or greater than a $(1-p)^{\text{th}}$ percentile of V .